

RB867515 Sugarcane cultivar

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ABSTRACT

RB867515 is a medium-ripening cultivar recommended to be cut from the middle to the end of the harvest period in Central-Southern Brazil. It presents higher productivity of stalks and sugar than cultivar RB72454. The development of the pithy and the red stripe diseases should be observed for an accurate management.

KEY WORDS: *Saccharum* spp., cultivar description.

INTRODUCTION

RB867515 is a sugarcane (*Saccharum spp.*) cultivar developed by the Sugarcane Breeding Program at the Federal University of Viçosa-UFV (www.ufv.br/dft/cana/sugarcane.htm). It presents medium ripening and cutting is recommended to be performed from the middle to the end of the harvest period in Central-Southern Brazil. The development of the pithy and the red stripes diseases should be observed for an accurate management. This sugarcane cultivar was submitted to the National Service for Cultivar Protection of the Ministry of Agriculture for registration and protection.

PEDIGREE AND BREEDING METHOD

In 1986, seeds were obtained from crosses between cultivar RB72454 and pollen from an unknown genotype (Figure 1) in the "Serra do Ouro" Crossing Station at the Federal University of Alagoas (9°13' latitude south, 35°50' longitude west and 450 m altitude) in Murici county, Alagoas, previously known as Sugarcane Breeding National Program-PLANALSUCAR- from the Sugar and Alcohol Institute. Two years later, the cultivar RB867515 was selected from this half-sib family (RB72454 x ?), in the Sugarcane Breeding Research Center-CECA of the UFV, located in Oratórios, Minas Gerais (20°25' latitude and 42°48' longitude west and 494 m altitude). Six stalks from the cultivar RB867515 were planted on a 4m-length furrow plot in a preliminary trial at CECA. The control RB72454 and hundreds of other clones were also included. This experiment was evaluated

from 1989 to 1991, according to the methodology described by Barbosa (2000). Due to its excellent performance, the RB867515 was selected in that experiment and introduced in 1992, 1993 and 1994 into mills and distilleries in the States of Minas Gerais and São Paulo. From 1994 on, a number of experiments using 20 to 24 genotypes on a randomized complete block design with four replicates and plots of 5 furrows measuring 10 m in length were carried out on lands of mills and distilleries. The produced canes were harvested for three to four consecutive years. From 1996 on, some sugarcane cropping areas superior to 20 hectares were implemented in some mills and distilleries for complementary observations, including the mechanical harvest system.

On December 1997, the RB867515 it was officially released as a cultivar by the Federal University of Viçosa.

PERFORMANCE

The results obtained from assays carried out at the mills and distilleries showed that RB867515 performs better in soils with fine texture and medium fertility. According to Table 1, the RB867515 overcame the agricultural industry productivity of the RB72454 under several management conditions in different production environments. The RB867515 shows good sprouting ability in late planting under low temperatures. At one-and-half-year planting, the sugarcane plant may fell at the end of the cycle because its vigorous growth. Cutting is recommended from the middle to the end of the harvest period when the observation of pithy

intensity should be made. Optimum management may be obtained by reducing spacing as well as in vinasse-applied areas, by using ripeners. An optimum sprouting is obtained under residues from mechanical harvest. Due to its fast initial growth, cutting should be done at the end of the harvest period in areas with low pithy inoculum. RB867515 is tolerant to smut and rust. It presents an intermediary reaction to mosaic and leaf scald. It is susceptible to red stripes and false red stripes (Pin, 1988; Giglioti and Matsuoka, 2000).

OTHER CHARACTERISTICS

The RB867515 shows an erect growth and easy removal of the straw. The initial growth is fast and tillering is medium with uniform and medium diameter stalks. The internodes are cylindrical with a green-purplish color under protection of the leaf, becoming extremely purple when exposed to the sun. It presents few growth cracks and mild zigzag. The stalk aspect is flat with little wax. The growth ring is of medium width

and green-yellowish color. The root zone is of medium width without aerial rooting. The buds are medium-sized and of pentagonal type, not much prominent but surpassing the growth ring, and the germ pore is apical. The pad is narrow in length and width. The leaves are medium width, arched, with curved ends, and their borders are not aggressively serrated. The sheath is long with a regular amount of wax and low deciduous pubescence. It presents two auricles, that is, one lanceolate and medium size and another transitorily short. The ligule has an increasing form. The dewlap is lanceolate. The stalk top is medium size, green-purplish and low waxed.

PEDIGREE SEED MAINTENANCE AND DISTRIBUTION

Cuttings of RB867515 have been maintained and distributed by the Crop Science Department of the Federal University of Viçosa, Viçosa, MG, CEP:3657-000, Brazil.

Table 1 - Performance of the cultivars RB867515 and RB72454 in 34 production environments corresponding to eight locations and to the harvest periods 1994/95, 1995/96, 1996/97 and 1997/98.

| Harvesting season | Number of harvested experiments | Cultivar | Sugarcane yield t/ha ^{1/} | Sugar yield t/ha* | Pol in juice |
|--------------------|---------------------------------|----------|------------------------------------|-------------------|--------------|
| April or may | 9 | RB867515 | 103.17 | 13.84 | 12.88 |
| | | RB72454 | 89.84 | 11.62 | 12.38 |
| June or july | 17 | RB867515 | 99.43 | 14.63 | 14.68 |
| | | RB72454 | 94.39 | 13.98 | 14.67 |
| August or setember | 8 | RB867515 | 94.06 | 15.45 | 16.40 |
| | | RB72454 | 77.36 | 12.71 | 16.20 |

^{1/} Yield estimates for five ratoons.

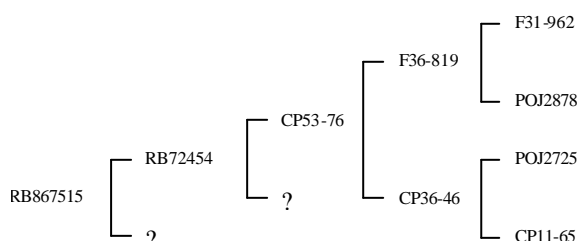


Figure 1 – RB867515 pedigree.

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